

### **REMARKS**

Claims 1-5, 7 and 8 have been rejected. Claims 1, 8, 9 and 12 have been amended.

Applicant wishes to thank the Examiner for indicating that claims 6 and 9-11 would be allowable if rewritten in independent from including all of the limitations of the base claim and any intervening claims. At this time, applicant has refrained from exercising this option as applicant believes claims, as amended, now distinguishes from the cited reference.

Claims 1, 8, 9 and 12 were objected due to informalities. In response, these claims have been amended to overcome the objections.

The drawings are objected because the photodiode bonded to the silicon optical bench are not shown. Applicant respectfully traverse this objection as the drawing fully show the photodiode. In particular, FIGs. 3 and 4 show the photo diode 30 to enable one skilled in the art to practice the present invention.

It is respectfully submitted that 37 C.F.R. 1.83(a) is not a requirement that every claimed feature *must, according to federal regulation*, be shown. The claimed features need to be shown in a drawing *to the extent necessary for an artisan to understand their relationship to other elements*, and it is not an *ipso facto requirement* that all elements must be illustrated if claimed.

Therefore, the Applicant respectfully requests that Examiner withdraw the above stated objection to the drawings.

Claims 1, 5, and 12 stand rejected under 35 U.S.C. § 103 as being unpatentable over Ohta (US Patent No. 4,686,678) in view of Toshiba (JP 3-217065) and further in view of Kuhara (US Patent No. 6,733,190). The applicant traverse this rejection for the following reason.

Claims 1 and 12 have been amended to recite "...a photo diode disposed in the stem, the photo diode converts light received from the laser diode into current and monitors photo-current

level using light reflected from the V-groove...”

Support for the above amendment can be found at least at page 6, lines 14-17, wherein the photo diode can generate adequate level of monitor photo-current above 100  $\mu$ A by collecting the reflected light at V-groove.

The Office Action indicates that Ohta is only different from base claim in that Ohta does not teach the silicon optical bench having a V-groove and the laser diode disposed on the V-groove, but Toshiba teaches a groove in a heat sink and a laser diode disposed on the groove. Further, V-grooves in silicon benches was a well-known conventional technique at the time of the claimed invention, citing Kuhara. Therefore, it would have been obvious in view of these arts.

Accordingly, applicant respectfully submits that Ohta, Toshiba, and Kuhara do not, either alone or in combination, show or teach that the photo diode can monitor a photo-current level using the reflected light at V-groove, as recited in now amended base claims.

Toshiba merely teaches that the groove serves as an escape groove during soldering process. More specifically, “the laser diode chip is pressed and soldered while it crosses the solder escape groove 15 on the amount surface 14 after heat sink 3 is heated for causing the indium solder on the mount surface e to be melted.”

Accordingly, for at least this reason, Applicants submit that all pending claims are allowable over Ohta, Toshiba, and Kuhara. The other claims in this application are each dependent from the independent claim discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of

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the invention, however, the individual consideration of the patentability of each on its own merits is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to kindly telephone the undersigned. If there are any fees due and owing, please charge Deposit Account No. 502-470.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450 Alexandria, Va 22313-1450 on June 17, 2005.

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